Khanty-Mansi Autonomous Okrug – Yugra. **METHODS:** The study consisted of three steps: 1. Analysis of the population structure in the study region with selection of patients group who can not pass medical examinations in hospitals. 2. Determination of equipment needed for the1st stage clinical examination for entire region population. 3. Development of economic model to evaluate implementation of telemedical technologies for regular medical examination among the adult population living far from hospitals. The decision tree model compared two strategies for the clinical examination of patients: 1) with telemedicine complex, when physicians come to patient and 2) without telemedicine complex, when patient have to visit hospitals themselves. Sensitivity analysis was performed to analyze changes in the results when the duration of use of telemedicine equipment (time horizon) was varied. **RESULTS:** One-time costs of telemedicine complex was € 1,44 million. The amount of spending for the telemedicine complex strategy was € 65,08 million for 3 years. The cost of strategy without telemedicine complex was € 62,27 million for the same time period. The difference between strategies amounted € 4,24 million. Investments in the acquisition of telemedicine complex are payed off in 1.02 years. **CONCLUSIONS:** Application of the telemedical complexallows to compensate acquisition costs in less than one and a half years and improves access to medical care for handicapped and remoted population of Khanty-Mansi Autonomous Okrug – Yugra.

PMD145

ADOPTION OF TRANSCATHETER AORTIC VALVE REPLACEMENT IN GERMANY: UTILIZATION PATTERNS AND CASE VOLUMES COMPARED TO SURGICAL AORTIC VALVE REPLACEMENT IN THE PERIOD 2009-2013

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OBJECTIVES: The German healthcare system was among the first markets to introduce transcatheter aortic valve replacement (TAVR) in routine care. Our objective was to estimate the impact of TAVR availability on overall aortic valve replacement volumes and competing therapies in this real-world setting. **METHODS:** Therapy- and age-specific procedure volumes were collected from German Federal Statistics Office databases for TAVR and surgical aortic valve replacement (SAVR) via sternotomy for years 2009 through 2013. Discharge and hospital-based mortality data were obtained for the same period based on applicable ICD-10 diagnosis. We computed therapy-specific and total procedure volumes and growth stratified by 5-year age increments and in total. Discharge and mortality data for aortic valve disease hospitalizations was assessed to obtain an estimate of changes in per-case mortality. **RESULTS:** In the time period 2009 to 2013 overall procedure volumes grew from 26,466 to 33,235 (+26%). This growth was driven by TAVR (3,411 to 10,814; +217%), while SAVR volumes remained stable (23,055 to 22,421; -3%). In patients 75 years or older, an overall procedure growth of 51% was observed (12,168 to 18,318), with volumes in older patient segments growing more heavily (+62% in >80-year olds; +101% in >85-year olds). Across all elderly age groups, SAVR volumes decreased (-20% in >80 year olds; -37% in >85 year olds), while they grew in selected younger patients groups (highest growth +30% in age group 60-64 yrs.). Concurrently, total aortic valve disease hospital discharges grew by 26%, from 44,161 to 55,748, while mortality per hospitalization case decreased by 5% between 2009 and 2013. **CONCLUSIONS:** The availability of TAVR has contributed to substantial growth in aortic valve replacements in Germany, specifically in elderly populations previously left untreated. This growth was associated with a concurrent gradual decline in overall mortality of aortic valve-related hospitalizations.

PMD146

MULTI EUROPEAN COUNTRY COST CONSEQUENCE COMPARISON OF FLOSEAL MATRIX AND SURGIFLO THROMBIN IN MAJOR AND SEVERE SPINE SURGERIES

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OBJECTIVES: A recently published retrospective analysis of the US Premier database showed that in major spine surgeries (MSS; e.g., fusion/refusion 2-3 vertebrae), the hemostatic agent Floseal reduces operative room (OR) time by 8.84 min ($p<0.0001$), transfusion rate by 0.2% ($p<0.0001$) and product volume by 3.35 mL ($p<0.001$) versus Surgiflo Thrombin. In severe spine surgeries (SSS, e.g. fusion/refusion 4+ vertebrae), Floseal reduces OR time by 26.94 min ($p<0.001$) and product volume by 1.52 mL ($p<0.008$) versus Surgiflo Thrombin. This analysis was undertaken to evaluate the cost-consequences of using Floseal versus Surgiflo Thrombin in spine procedures in 4 European countries. **METHODS:** A cost-consequence model (hospital perspective) was built in Excel using the outcomes from the retrospective study: OR time, blood transfusion (assumption: 2 units per patient transfused) rates, product volume used. Unit costs were obtained for France, United Kingdom (UK), Germany and the Netherlands (NL) from official national sources or published literature. An annual case load of 1,000 MSS and 1,000 SSS per year was assumed. Monte-Carlo simulation was used to account for parameter uncertainty using the 95% confidence interval or ± 20%. **RESULTS:** Floseal could lead to net annual **savings versus Surgiflo Thrombin ranging from 56,000€ (Germany) to 344,000€ (NL) for the 1,000 MSS case load and from 179,000€ (Germany) to 540,000€ (UK) for SSS. Monte-Carlo simulations showed that savings are >100€ per MSS and >200€ per SSS in 82 to 99% of iterations in UK and NL. That level of net savings is reached in a smaller number of iterations in other countries (e.g., 45-60% in France, 24-43% in Germany)**. **CONCLUSIONS:** This analysis indicates that using Floseal instead of Surgiflo Thrombin as adjunct to hemostasis in MSS and SSS could lead to sizable cost savings to hospitals, and that the importance of the savings is dependent on the country.

PMD147

POTENTIAL ECONOMIC IMPACT OF INHALATION ERRORS DUE TO DEVICE SWITCH IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ASTHMA

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OBJECTIVES: As different inhalation devices require largely different techniques of use, the non-trained switch of device in chronic obstructive pulmonary disease (COPD) and asthma patients may be associated with a poor inhalation technique and, consequently, in a reduction of adherence and worsening in pathology control. Aim of this analysis is to estimate the possible economic impact on Italian National Health Service (INHS) related to errors in inhalation in patients switching device without adequate training. **METHODS:** An Italian observational study on patients with COPD and asthma, highlights higher healthcare resource consumption associated with inhaler mishandling. Particularly, significantly higher rates of hospitalizations, emergency room (ER) access and pharmacological treatment (steroids and antimicrobials) were observed. These differences in resource consumption were monetized from the INHS perspective considering national DRGs tariffs for hospitalizations and ER access and public price for drugs consumption. **RESULTS:** Comparing a population of 100 COPD patients with at least a critical error in inhalation with 100 COPD patients without errors in inhalation, the first population is associated with an excess of 11.5 hospitalizations, 13 ER access, 19.5 antimicrobial courses and 47 corticosteroids courses. In the same way, if we compare 100 asthma patients with at least a critical error in inhalation with 100 asthma patients without errors in inhalation, the first population is associated with an excess of 19 hospitalizations, 26.5 ER access, 4.5 antimicrobial courses and 21.5 corticosteroids courses. These differences in resource consumption are associated with an yearly incremental cost for 100 patients, due to inhalation errors, of 23,444€ in COPD patients and 44,104€ in asthma. **CONCLUSIONS:** This evaluation shows that misuse of inhalation devices, possibly associated to inadequate training or non-consented switch of inhaled medications, is associated with a decrease in disease control and an increase in healthcare resource consumption and costs in COPD and asthma patients.

PMD148

TURKISH REIMBURSEMENT SYSTEM FOR MEDICAL DEVICES

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OBJECTIVES: Objective of this study is to elaborate on the Turkish medical devices (MDs) reimbursement system. **METHODS:** Health Implementation Communiqué (SUT), MD Reimbursement Guidelines and National Data Bank of Medicines and MDs (TITUBB) are analyzed. **RESULTS:** Ministry of Health (MoH) is responsible for medicines' and MDs' registration, while Social Security Institution (SSI) is the payer and the decision-maker for reimbursement rules; defined by SUT. Holding CE-mark and MoH approval are prerequisites for reimbursement. All MDs are subject to generic listing: there are specialty-based positive lists, consisting of generic definitions and codes with corresponding ceiling reimbursement prices set by SSI. For inclusion into the positive lists, the manufacturer/distributor has to submit a "reimbursement dossier" to SSI. According to the "Application Guideline" published in May 2014, the content and level of evidence requirements for dossiers depend on the application type: For a new code or a new title creation, health-economics and clinical evidence are required. For matching to an existing code and applying for minor technical changes like barcode and label name of a product basic clinical data and MoH approval is sufficient. However C and D type are not processed currently due to existing TITUBB, joint data bank of MoH and SSI, allowing manufacturers to match products to existing SUT codes manually. A new system is planned to be launched which will not allow manual reimbursement approval and all code-matchings will be evaluated by SSI with respect to above-mentioned Guideline. As neither the timeline for new system activation nor the evaluation criteria of dossiers are clearly determined, reimbursement evaluation processes are not fully-transparent and predictable. **CONCLUSIONS:** MD reimbursement decisions are limited to basic safety, efficacy and clinical evidence. Due to existing generic listing practice, quality- or brand-based differentiation in reimbursement is not applied and price-differentiation for innovative and high-quality products does not prevail.

PMD149

MEDICAL DEVICES – BREST FORMS. COST AND QUANTITY CHARACTERISTICS OF MEDICAL DEVICES IN SLOVAKIA 2009 – 2013

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OBJECTIVES: Reconstruction techniques after a mastectomy have improved greatly in recent years, with much more natural results. Even so, a third of women choose not to have reconstruction. They turn to breast forms medical devices (MDBF). MDBF are reimbursed from Health insurance funds, but for MDBF with higher functional properties, there is a presence of higher patient co-payment. **METHODS:** The target of the work was to analyse the data from paid databases of Slovak authority National Center for Health Information that collects the outputs of provided health care. The data were focused on totally or partly reimbursed medical devices (MD) from public health insurance funds. The selected group was medical devices for people after mastectomy – Brest forms. The most recent data were from 1.1. 2009 - 31.12. 2013. It was used basic and advanced statistic processing by Microsoft Excel. RESULTS: Referring to the National Center for Health Information, in the observed period, the share of MDBF on total consumption of MD stagnated (MDBF/MD2009=0.0039%; MDBF/MD2013=0.0038%; ΔMDBF/MD2009-2013=-0.0001%). The total quantitative consumption MDBF increased (Δ2009-2013=458pcs/14.16%; max2013=4 101pcs; min2009=3 235pcs; AVG=3 693pcs; Mean=3 685pcs; SD=333). The share of MDBF on total reimbursement of MD stagnated (MDBF/MD2009=0.14%; MDBF/MD2013=0.12%; ΔMDBF/MD2009-2013=-0.02%). The total reimbursement in the observed period increased (Δ2009-2013=12 174€/6.93%; max2013=187 736€; min2009=175 562€; AVG=179 050€; Mean=179 554€; SD=5 651). The share of MDBF on the patient supplements of MD stagnated (MDBF/MD2009=0.27%; MDBF/MD2013=0.23%; ΔMDBF/MD2009-2013=-0.04%). The total patient supplements increased (Δ2009-2013=3 700€/43.36%; max2013=12 234€; min2009=8 534€; AVG=11 637€; Mean=12 234€; SD=1 835). CONCLUSIONS: Development of MDBF costs is almost stable. MDBF has a higher patient co-payment. This fact is due to the current legislation when more